

## *Teaching Case*

# MOBILE PHONE SERVICE PROCESS HICCUPS AT CELLULAR INC.

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### ABSTRACT

This teaching case documents an actual case of process execution and failure. The case is useful in MIS introductory courses seeking to demonstrate the interdependencies within a business process, and the concept of cascading failure at the process level. This case demonstrates benefits and potential problems with information technology systems, how business processes transcend departments, and how cascading failure may arise. It has been used successfully in undergraduate MIS core business courses and is appropriate for graduate MIS as well as IS design courses.

When a customer tries to purchase a cell phone and a service contract from Cellular Inc. using their ecommerce site, an expired advertisement begins a cascade of problems that occur throughout the customer-visible portions of the procurement/fulfillment process. The president of the company introduces the case as a catalyst for process improvement. He tasks his cross-functional business team to design an improved business process that will prevent the identified problems from occurring again.

Students are tasked with defining the detailed steps occurring in the actual process and to define an improved process. Opportunities with design and theoretical contributions to improving the process are discussed.

**Keywords:** Business Process, Cascading Failure, Customer Satisfaction, Customer Support, Information System, Mobile Technology, Procurement

### 1. INTRODUCTION

Customer-facing processes need to operate flawlessly in organizations. Each process failure threatens the perceived quality of the firm. Process failures can be complex considering that business processes transcend departments and highlight the interdependent nature of an organization. A failure can cascade into other problems, demonstrating that problems also transcend organization departments. This case is useful to demonstrate the interdependent nature of an organization, the detail needed to understand a process, process execution failure, how failures can cascade from a 'small' problem, and the role of information technology to assist process success (or failure).

This case considers the procurement process at a mobile phone service provider. This case considers customer satisfaction and business process problems. These problems occur when a customer goes online to engage a new cell phone service provider and to purchase a new phone. When an online promotion advertised a phone at a lower price, the potential customer's attempt was subsequently rejected by the automated procurement process and a series of cascading

process failures follow. These events actually occurred and the customer's letter duplicates the letter received by the CEO. The case is significant because (1) it introduces students to the details of a business process, (2) it demonstrates that both process and cascading process failure transcend an organization's departments, and (3) it demonstrates how IT can affect the business both positively (the online procurement opportunity) and negatively ('forgetting' to remove the expired advertisement).

### 2. CASE TEXT

Cellular Inc. is a leading mobile phone service provider with offices worldwide and annual revenues of almost \$50 billion. [The name of the company and details of the corporation have been modified for anonymity. All details of the case events themselves occurred in real life as reported in this case study.] The company was founded in the southeast US in the early 2000s and rapidly became the leading US mobile phone provider. At the time of this case, its subscriber base was over 50 million individuals. In the middle of this year,

Cellular was removed from the New York Better Business Bureau (BBB) due to a large number of complaints that were not handled to the customers' satisfaction. Cellular is trying to overturn this ruling and is in the process of restructuring its customer care procedures. The company received more than 14,000 documented complaints against Cellular in its last annual quality report. The most frequently reported complaints included over-billing, poor customer support, number portability, and network reliability issues.

In contrast to poor customer support, the company maintains excellent relationships with its employees. Recently, the Communication Workers of America union, which represents over half of all Cellular employees (total employees = 74,200), recognized the company for excellence as a union employer, much in contrast to its main competitor whose reputation was as an aggressive union-buster.

### **2.1 Cellular President Calls Staff Meeting**

Ed Whatodo, president of Cellular, has called a cross functional team meeting with representatives from every major department in the company to address a major customer support issue. With subdued exuberance, he began, "Hello everyone. As president of Cellular, I am quite proud of the working relationship we have developed internally. We have earned a reputation as an employer where management and employees work together to meet each group's annual goals and objectives. We are a leader in our market segment and continue to build on that base. I am confident that we can meet our corporate objective of becoming the largest mobile phone provider within the next three years." "In order to do this, though," his voice becoming more somber and slowing his speech slightly, "we must recognize that we are missing the boat sometimes in our interactions with those who will ultimately take us to the apex of this market....our customers. While we cannot be perfect, we need to take seriously the complaints coming from many sources. As you know, we experienced a major setback by being delisted recently by the New York BBB." Looking at all of them with reserved determination, he said, "We should have recognized that we had more than a few random problems long before we became a candidate for delisting."

Continuing, he added, "It isn't just the BBB. We receive complaints and do not take the right steps....and thorough steps, to correct problems so that they do not occur again. For instance, here is a detailed letter from one of our customers. Frankly, in reading this letter, I am surprised she stayed with us, but the letter gives us an opportunity to take a good look at our business and fix some serious business process problems."

Next, his staff assistant began passing out copies of the letter while Ed began to read it:

### **2.2 Customer Letter to President**

*Mr. Ed Whatodo, President  
Cellular Inc.  
1001 Slippery Road  
[Southeast US]*

*Dear Mr. Whatodo:*

*I am sending you this letter after what is the worst online business process I've ever experienced. All I wanted was a specific model for a new phone, a new phone number, a discount for being a corporate partner employee, and a reliable wireless provider to accommodate my relocation from my old state to my new home in another state. I saw an ad for a very good price for an iGizmo (the model I wanted) on your web site, obtained a couple recommendations from my colleagues, and began what should have been a partial day process. I took for granted that the billing would be reliable. I also took for granted that ordering online would be the most straightforward process. Was I ever wrong! I will tell you my story, but I need your help to fix my personal problem. In doing so, you should be able to understand the need to fix a series of very serious sales and customer support business processes.*

*I had been researching for a couple weeks the various promotions offered by different vendors. In June, I had visited your site multiple times to confirm the actual promotion which deeply discounted the phone I wished to acquire I was drawn to the offer of an iGizmo for \$124.99 for a new activation and a contract for 2-years. My interest was for this to be a seamless web transaction and it appeared that the web site was set up for this. Unfortunately, I wasn't seeing the promotional price being displayed in my order so initially I backed away from it without completing the transaction.*

*Wanting to verify the offer, I used IM [instant messaging] and was connected with Debbie S. As IM messages disappear after termination, I took a copy of it and it is attached. As you can see Debbie S. confirmed this promotion and mentioned I might have to call customer service if the online application was not working properly.*

*The online ordering application still wasn't bringing up the advertised price, so I called the number provided by Debbie to get help with the order. I was connected to Robbie M who told me that the \$124.99 was a promotion which was supposed to end on June 1 (although there was no expiration date noted on the web site). The iGizmo's price, I was told, shouldn't have been advertised as such after June 1, but reluctantly he would honor the price since it was still on the web site (he also verified this).*

*This time the order should have been performed by your sales person, but he made me reenter everything again. At first, I could not input my order; Robbie had to clear the order out – not that anything was listed as being in the cart, but the system was stating I already owned an iGizmo and Plan with accessories (which seemed to come from my former attempt that was never submitted for a final transaction but had been aborted when it was clear that the transaction was not what I wanted.) Robbie emailed me another link that I had to access to restart again and once I opened my email and retrieved it, I had to retype everything I had entered previously.*

*Upon filling out my contact information, there were three address fields: billing, shipping, and service delivery. After filling out the billing address, an option asked if this was my shipping address. When I checked, yes, my address was duplicated automatically in the shipping address fields.*

You would think, then, that delivery could be a different address. In my case, it would be. Relocation is hectic enough and I wanted to order my new cell phone early so that everything could be set up and I would have my new number during relocation itself. Plus, this would be one complexity to remove from a long list of to-do activities. So, I wanted the phone and bill delivered to my pre-move home and the service to be assigned to my new address. Most importantly, I wanted my service delivery address to be in the new state so that I could obtain a new phone number that matched the location of my new home.

The online application would not allow me to use the zip code for the house I purchased in my new state (as the service delivery address). Since I wouldn't be there for another few weeks, I knew a cell phone bill was likely to be due before then. Your representative said I couldn't have a different service and billing address, so I had to receive a phone number assigned to my former state which could easily be changed to a number in the new state as soon as my phone arrived.

When the price during this 'monitored' reentry wouldn't reflect the advertised price, Robbie told me to complete the order anyhow and he would give me a credit. He said after the transaction was completed he could either credit my credit card or credit my phone account, whichever my preference. I indicated I preferred to have my credit card credited.

After completion, he said it was too hard to credit my credit card and with all the time we were investing, I gave in and said crediting the account would be fine. At this point, Robbie informed me that he could not either credit my credit card nor my new account, because if for some reason I cancelled the transaction, somehow I would be \$190.00 ahead and they had no way to get it back. He said he could not give me a credit until my phone arrived; I had activated it; and then I had called customer service. When I protested that there was a chance another customer representative wouldn't honor the request, he acted like I was being unreasonable. He would make a note in my file or that I could just request talking to him again.

When the phone arrived, I wanted my credit. I called the number listed on the invoice for customer support. The automated messages don't make it clear on which number to press for a problem order. I finally found a menu that allowed for zero to be pressed for a real person. Kim answered, seemed confused as to who should handle my problem, and eventually transferred me. She says she had no way of transferring me to Robbie M. (as I requested) because of the problems of a geographically distributed call center! I was transferred two more times until I was connected to another representative, Amelia, who knew nothing about my situation (even though the first representative said he was entering notes to explain what needed to be done). She located people with whom she believed could handle the situation and not only were they also unaware of this problem, they said I had to supply proof of the advertisement in order to get a credit for my phone, which had been removed within the last day. I was livid! Your customer support people don't seem to know how to find another employee. Your representative, Amelia, was trying to help but seemed to want my sympathy that she was being kept on

hold for a few minutes (by her colleagues) while she looked for answers – my interaction to purchase the phone initially took over 30 minutes and this latest attempt to get my credit took over 70 minutes, mostly on hold.

I then realized that there was another number I used (from the IM chat from which I took a screen shot so that I could save the interaction) and called the number. I was able to find Robbie who credited my cell phone account (he said he couldn't credit the credit card). But, he couldn't help me get my phone number changed! I had to call yet another number and that person transferred me to the relocation department. This representative wanted to charge me for sending a new chip that would have the new number! I said definitely not and I would not activate service if that was the case. She backed down. Once I received the chip, I called again after first being required to activate the phone using the former state's wireless number. Then, once it was activated, and the new chip was installed (by me), your representative processed a change of address notation and issued a new phone number. This process took well over a week, just to complete a simple order! And, the pain doesn't end yet. Billing has its own share of pain.

**[For a shorter version of this case, the instructor can choose to delete the billing details, which are the next five paragraphs and resume with the final customer support problem noted.]**

I received a welcome email with a link acknowledging that I was a new customer. The monthly charge was \$39.99 and did not reflect that my discount as a corporate customer should bring it to \$37.59. The welcome link notes that my first invoice will include a charge for \$49.32 with subsequent billing of the \$39.99 monthly rate plan. Where did the \$49.32 come from? It never appeared on the invoice screen that I authorized; this appears to be a charge added without my consent.

The welcome link did not note my order attachments of a car charger and carry case. The confirmation email I received immediately after ordering did acknowledge my order for both of these items (note the 'welcome' email/link followed a day later.)

The promotion and what I verified with both the IM representative (Debbie) and the customer service rep, Robbie, stated the promotion price of \$124.99 for the phone. The web application (what I was forced to order with the promise of an immediate credit) was \$314.99, yet the 'welcome' message noted my charge as \$289.99 – where did this number come from?

The paper trail is also abysmal. An invoice arrived in the mail. The credit for my phone was there; it seemed that the discount was there; and my bill was prorated to reflect a partial month but for more days than I had activated (i.e., had a phone in service). It appears that the days charged related more to when the phone was expected to be delivered than from when I called the designated phone number to activate the service.

Then, a few days later, I received another bill for the same time period. This bill was for a full month (when only a partial month was possible), no employee discount, and no acknowledgement of the credit. Turns out two separate accounts (both linked to the same phone) were set up for me (how ridiculous!). The first statement was for the first

number in my former state (which never should have existed; I never wanted it, and your people forced me to process); this one had my credit. The second statement was for the new state's address and phone number, but I only activated my phone during the third week of the billing month.

*[End of billing details section]*

I tried to call the designated customer support phone number to report the various problems I was experiencing, but the wait was in excess of ten minutes. Then, I tried to use the online support; this was a cruel joke. Only the most simple and standard of problems can be addressed. When I finally (after about a half hour or more of searching and repeated requirements to re-log-into my account) found a way to send an email, the number of characters is so restricted that I had constructed the description fairly cryptically, but just before I was done, the email timed out! I could not retrieve my message and there was no prior warning that timing-out might occur!

I am writing to you for your help and to alert you to a very significant business process problem.

Sincerely,

Dr. Ika Knotbelieftis

### 2.3 President's Call to Action

"Now," Ed Whatodo slowed his speech even more, lowered his voice, and took time to look each individual in the eye while saying, "I want you to use this letter as your basis in this meeting for change. Identify what we need to do, why we need to do it, and what risks would we still need to address." In closing he paused before leaving, "Our entire corporate future depends on rebuilding business processes like this that interface with our most critical resource, our customers and their good opinion of us."

## 3. STUDENT ASSIGNMENT

As part of the response to the president, you need to address the following:

1. Describe the business process occurring in this case; from the time the customer is interested to the time that the customer is reporting this problem to the president. Use a process flow diagram (short labels indicating how actions and decisions occur), or use a table format to define the process in terms of steps that occur by both the company and customer and decisions that have been made.

2. List separately all the specific problems that need to be addressed by the company. In addition, to the problem(s) the customer is highlighting, what other events or activities have the customer referenced that should not be occurring?

3. Define in detail an improved business process.

(a) Develop a new process flow diagram to document the new process. You are required to use the identical format (process flow diagram or table) as you used in #1 above.

(b) For each change that you make by adding or removing process steps; identify where and how an improvement eliminates a problem.

(c) Note where and why there may be risks in the new process.

(d) How long will it take from the start of the procurement transaction to the successful activation of the phone for this new process? Have you included anything to minimize delays and confusion if a problem in the new process should occur? Explain.

4. What two problem solutions could the company have made that could have prevented the customer from experiencing any of the other problems in this specific sequence of events?

## AUTHOR BIOGRAPHY

Theresa M. Edgington is an Assistant Professor in the Hankamer School of Business at Baylor University. This is her second career following more than twenty years in various management and technical roles in IT, including process improvement roles. Early in her career she was the architect for a high security, problem reporting transaction processing system utilized in product introduction and problem resolution processes. She was the program manager responsible for a major turnaround in customer satisfaction for enterprise systems. She also served as the customer advocate on quality improvement and process implementation programs at a global large systems organization. She earned her MBA and PhD degree in Information Systems at Arizona State University. Her research interests include knowledge-intensive systems, analyses processes in organizations, text analytics and data mining, technology introduction, and collaborative systems. She has published in MIS Quarterly, Decision Support Systems, Communications of the ACM, ACM e-Learning, and at academic conferences such as ICIS, INFORMS, HICSS, and AMCIS, along with various industry conferences and user groups.





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